Inventor:

Arup Bhattacharyya

Title:

Semiconductor Devices, and Electronic Systems Comprising

**Semiconductor Devices** 

Assignee:

Micron Technology, Inc.

PURSUANT TO 37 C.F.R. " 1.56, 1.97 AND 1.98

In compliance with 37 C.F.R. §§ 1.56, 1.97 and 1.98, your attention is

directed to the United States patents and other references listed on the attached

Form PTO-1449. No admission is made regarding whether all the submitted

references are prior art.

The listed references were cited by, or submitted to, the Office in the

parent, co-pending application of the above-identified application. The above-

identified application is a continuation application of co-pending application

Serial No. 10/364,710, filed February 10, 2003. Such prior disclosure is

sufficient for the above-identified application as far as copies of the references

are concerned. 37 C.F.R. § 1.98(d) and MPEP § 609(2).

Citation of these references is respectfully requested.

Datad:

By:

Respectfully submitted,

David G. Latwesen, Ph.D.

Reg. No. 38,533

Mye5rsForm PTO-1449	U.S. DEPARTMENT OF COMM PATENT AND TRADEMARK O		ATTY. DOCKET NO. MI22-2506	PRIORITY SERIAL NO. 10/364,710			
	LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT Arup Bhattacharyya				
			PRIORITY FILING DATE February 10, 2003	GROUP Unknown			
	OTHER REFERENCES (including Author, T	itle, Date,	Pertinent Pages, Etc.)				
AA	Ono, K. et al., "Analysis of Current-Voltage Char	acteristic	s in Polysilicon TFTs for LCD	s", IEDM Tech. Digest,			
	1988, pp. 256-259.						
АВ	Yamauchi, N. et al., "Drastically Improved Perform	nance in	e in Poly-Si TFTs with Channel Dimensions Comparable to				
	Grain Size", IEDM Tech. Digest, 1989, pp.	353-356.					
AC	King, T. et al, "A Low-Temperature (≤550°C) Silic	King, T. et al, "A Low-Temperature (≤550°C) Silicon-Germanium MOS Thin-Film Transistor Technology					
	Large-Area Electronics", IEDM Tech. Digest,	1991, p	p. 567-570.				
AD	Kuriyama, H. et al., "High Mobility Poly-Si TFT b	y a New	Excimer Laser Annealing Me	thod for Large Area			
	Electronics", IEDM Tech. Digest, 1991, pp.	Electronics", IEDM Tech. Digest, 1991, pp. 563-566.					
AE	Jeon, J. et al., "A New Poly-Si TFT with Selective	ely Dop	ed Channel Fabricated by Nov	vel Excimer Laser			
	Annealing", IEDM Tech. Digest, 2000, pp. 213-216.						
AF	Kim, C.H. et al., "A New High -Performance Poly	Kim, C.H. et al., "A New High -Performance Poly-Si TFT by Simple Excimer Laser Annealing on Selectively					
	Floating a-Si Layer", IEDM Tech. Digest, 2001, pp. 751-754.						
AG	Hara, A. et al, "Selective Single-Crystalline-Silicon	Growth	at the Pre-Defined Active Re	egions of TFTs on a Glass			
	by a Scanning CW Layer Irradiation", IEDM	Tech. D	rigest, 2000, pp. 209-212.				
АН	Hara, A. et al., "High Performance Poly-Si TFTs	on a Gl	ass by a Stable Scanning CV	/ Laser Lateral			
	Crystallization", IEDM Tech. Digest, 2001, p	o. 747-7	50.				
AI	Jagar, S. et al., "Single Grain Thin-Fim-Transisto	(TFT) v	with SOI CMOS Performance	Formed by			
	Metal-Induced-Lateral-Crystallization", IEDM 1	ech. Dig	gest, 1999, p. 293-296.				
AJ	Gu, J. et al., "High Performance Sub-100 nm Si	Thin-Filr	n Transistors by Pattern-Contr	olled Crystallization of Thin			
	Channel Layer and High Temperature Annea	aling", Di	RC Conference Digest, 2002,	pp. 49-50.			
AK	Kesan, V. et al., "High Performance 0.25μm p-M	OSFETs	with Silicon- Germanium Cha	nnels for 300K and 77K			
	Operation", IEDM Tech. Digest, 1991, pp. 2	Operation", IEDM Tech. Digest, 1991, pp. 25-28.					
AL	Garone, P.M. et al., "Mobility Enhancement and o	Quantum	Mechanical Modeling in Ge <sub>x</sub> S	Si <sub>1-x</sub> Channel MOSFETs from			
	90 to 300K", !EDM Tech. Digest, 1991, pp.	29-32.					
EXAMINER	DATE C	DATE CONSIDERED					
	al if reference considered, whether or not citation is in co considered. Include copy of this form with next commun			through citation if not in			

EL979954519

Form PTO-1449		U.S. DEPARTMENT OF COMMERCI PATENT AND TRADEMARK OFFICE		SERIAL NO. 10/364,710				
	LIS	T OF ART CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Arup Bhattacharyya					
			FILING DATE February 10, 2003	GROUP 2811				
		OTHER REFERENCES (including Author, Title,	Date, Pertinent Pages, Etc.)					
AM	AM Feder, B.J., "I.B.M. Finds Way to Speed Up Chips", The New York Times, June 8, 2001, reprinted from							
		http://www.nytimes.com/2001/06/08 /technology/08BLUE.html, 2 pgs.						
AN	N	Rim, K. et al., "Strained Si NMOSFET's for High Performance CMOS Technology", 2001 Sympos. on V						
·		Digest of Technical Papers, p. 59-60.						
AC	0	Li, P. et al., "Design of High Speed Si/SiGe Heteroju	nction Complementary MOSFE	Ts with Reduced Short-Channe				
		Effects", Natl. Central University, ChungLi, Taiwan, ROC, Aug. 2001, Contract No. NSC 89-2215-E-008-049,						
	<u> </u>	National Science Council of Taiwan., pp. 1, 9.						
AI	.P	Ernst, T. et al., "Fabrication of a Novel Strained SiGe:C-channel Planar 55 nm nMOSFET for High-Performance						
		CMOS", 2002 Sympos. on VLSI Tech. Digest of Technical Papers, pp. 92-93.						
. AC	°	Rim, K. et al., "Characteristics and Device Design of Sub-100 nm Strained SiN- and PMOSFETs", 2002 Sympos.						
		on VLSI Tech. Digest of Technical Papers, pp. 98-99.						
. AF	R	Belford, R.E. et al., "Performance-Augmented CMOS	Using Back-End Uniaxial Strain	n", DRC Conf. Digest, 2002,				
		pp. 41-42.						
AS	s	Shima, M. et al., "<100> Channel Strained-SiGe p-MOSFET with Enhanced Hole Mobility and Lower Parasitic						
		Resistance", 2002 Sympos. on VLSI Tech. Diges	-95.					
Aī	т	Nayfeh, H.M. et al., "Electron Inversion Layer Mobility in Strained-Si n-MOSFET's with High Channel Doping						
		Concentration Achieved by Ion Implantation", DRC Conf. Digest, 2002, pp. 43-44.						
At	U	Bae, G.J. et al., "A Novel SiGe-Inserted SOI Structure for High Performance PDSOI CMOSFET", IEDM Tech.						
·		Digest, 2000, pp. 667-670.						
A	v	Cheng, Z. et al., "SiGe-on-Insulator (SGOI): Substrate Preparation and MOSFET Fabrication for Electron Mobility						
		Evaluation" and conference outline, MIT Microsystems, Tech. Labs, Cambridge, MA, 2001 IEEE Internatl. SOI Conf., 10/01, pp. 13-14, 3-pg. outline.						
AW	w	Huang, L.J. et al., "Carrier Mobility Enhancement in S	strained Si-on-Insulator Fabrica	ted by Wafer Bonding", 2001				
		Sympos. on VLSI Tech. Digest of Technical Papers, pp. 57-58.						
EXAMINER		DATE CONS	DATE CONSIDERED					
		reference considered, whether or not citation is in conformidered. Include copy of this form with next communication		ine through citation if not in				

EL979954519°

Form PTO-1449		U.S. DEPARTMENT OF COMMER PATENT AND TRADEMARK OFFI		SERIAL NO. 10/364,710				
		LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Arup Bhattacharyya					
			FILING DATE February 10, 2003	GROUP 2811				
-	-	OTHER REFERENCES (including Author, Tit	le, Date, Pertinent Pages, Etc.)	-				
	AX	Mizuno, T. et al., "High Performance CMOS Operation of Strained-SOI MOSFETs Using Thin Film SiGe-on-						
į		Insulator Substrate", 2002 Sympos. on VLSI To	ech. Digest of Technical Papers,	p. 106-107.				
	AY	Tezuka, T. et al., "High-Performance Strained Si-on	Insulator MOSFETs by Novel Fa	brication Processes Utilizing				
		Ge-Condensation Technique", 2002 VLSI Tech	Digest of Technical Papers, pp.	96-97.				
	AZ Takagi, S., "Strained-Si- and SiGe-on-Insulator (Strained SOI and SGOI) MOSFETs for High F							
		Power CMOS Application", DRC Conf. Digest,	2002, pp. 37-40.					
	ВА	"IBM Builds World's Fastest Communications Microc	hip", Reuters U.S. Company Nev	vs, 2/25/2002, reprinted from				
• ,		http://activequote300.fidelity.com/rtrnews/_individ	ual n/ 1 pg.	·				
	ВВ	Markoff, J., "I.B.M. Circuits are Now Faster and Re	Markoff, J., "I.B.M. Circuits are Now Faster and Reduce Use of Power", The New York Times, Feb. 25, 2002,					
		reprinted 3/20/02 from http://story.news.yahoo.com/ news?tmpl=story&u=/nyt/20020225/, 1 pg.						
	вс	Park, J.S. et al., "Normal Incident SiGe/Si Multiple	Park, J.S. et al., "Normal Incident SiGe/Si Multiple Quantum Well Infrared Detector", IEDM Tech. Digest, 1991,					
· .		pp. 749-752.						
:	BD	. Current, M.I. et al., "Atomic-Layer Cleaving with Si,	Ge, Strain Layers for Fabrication	of Si and Ge-Rich SOI Dev				
		Layers", 2001 IEEE Internati. SOI Conf. 10/01,	pp. 11-12.					
	ВЕ	Bhattacharyya, A., "The Role of Microelectronic Inte	gration in Environmental Control:	A Perspective", Mat. Res.				
		Soc. Symp. Proc. Vol. 344, 1994, pp. 281-293.						
	BF	Myers, S.M. et al., "Deuterium Interactions in Oxygen-Implanted Copper", J. Appl. Phys., Vol. 65(1), Jan. 1, 1989,						
		p. 311-321.						
	ВG	Saggio, M. et al., "Innovative Localized Lifetime Control in High-Speed IGBT's", IEEE Elec. Dev. Lett., V. 18,						
		No. 7, July 1997, pp. 333-335.						
	вн	Lu, N.C.C. et al., "A Buried-Trench DRAM Cell Using a Self-Aligned Epitaxy Over Trench Technology", IEDM						
		Tech. Digest, 1988, pp. 588-591.	Tech. Digest, 1988, pp. 588-591.					
	ВІ	Yamada, T. et al., "Spread Source/Drain (SSD) MO	Yamada, T. et al., "Spread Source/Drain (SSD) MOSFET Using Selective Silicon Growth for 64Mbit DRAMs",					
		IEDM Tech. Digest, 1989, pp. 35-38.						
EXAMINER	1	DATE CON						

EL979954519

Form PTO-1449	)				J.S. DEPARTMENT OF COMMERCE ATENT AND TRADEMARK OFFICE	ATTY, DOCKET N MI22-2506		PRIORITY SERIAL NO. 10/364,710		
		LIST OF ART	CITED B		:ANT	APPLICANT Arup Bhattacharyya				
					U.S. PATENT DOCUMENTS					
*Examiner Initial		Document Number		Date	Name		Class	Subclass	Filing If Appro	
	AA	4,375,085		02-1983	Grise et al.					
	AB	5,483,094		01-1996	Sharma et al.					
	AC	5,659,504		08-1997	Bude et al.					
	AD	6,607,948 BI		08-2003	Sugiyama et al.					
	AE	US2003/0042534	Al	03-2003	Battacharyya					
	AF									
-	AG									
	AH	-								
	AI				- 5					
	AJ									
	AK									
		T			FOREIGN PATENT DOCUMENTS	5	<del></del>		1	
		Document Number		Date Country			Class	Subclass	Trans Yes	slation No
	AL		$\Box$						1 63	
	AM						ļ			<u> </u>
	AN	-	-+			· · · · · ·				ļ
	AO_		$\rightarrow$				-		<del>                                     </del>	
	AP			THEO DEED	RENCES (including Author, Title, Date, I	Dtiment Dagger Fitc.)			<u> </u>	
	AR	van Meer, Internati.	H. Et al., " SOI Conf. 10	"Ultra-Thin Fil 0/2001, pp. 45	Im Fully-Depleted SOI CMOS with Ra 5-46.	aised G/S/D Device Arc	hitecture for S	ub-100 nm Ap	pplications", 20	01 IEEE
	AS									
							-			
	AT				-		,	<del>,</del>		
						· · · · · · · · · · · · · · · · · · ·	<u> </u>			
EXAMINER	L				DATE CONSIDERE	D				
		reference considered, ext communication to		not citation is	in conformance with MPEP 609; Draw	w line through citation	if not in confe	ormance and n	ot considered.	Include